

225 DEGREE RADIAL

SITE #	DISTANCE (KM)	FIELD INTENSITY - dBu/30'				
		WAEM (VERT)	WAEM (HOR)	WMXJ (VERT)	WAEM (VERT / HOR)	WAEM / WMXJ U / D
1	1.12	101.60	86.70	-0-	-14.90	-0-
2	2.24	88.50	76.30	83.40	-12.20	5.10
3	4.49	68.50	62.20	85.50	-6.30	-17.00
4	7.36	59.90	-0-	82.40	-0-	-22.50
5	9.90	58.40	-0-	82.00	-0-	-23.60

FIGURE 3

270 DEGREE RADIAL

DISTANCE (KM)	FIELD INTENSITY - dBu/30'			WAEM (VERT / HOR)	WAEM / WMXJ U / D
	WAEM (VERT)	WAEM (HOR)	WMXJ (VERT)		
1.90	92.48	83.20	-0-	-9.28	-0-
4.96	67.40	-0-	83.76	-0-	-16.36
6.88	64.46	56.90	84.29	-7.56	-19.83
7.84	61.62	56.16	84.23	-5.46	-22.61

FIGURE 4

315 DEGREE RADIAL

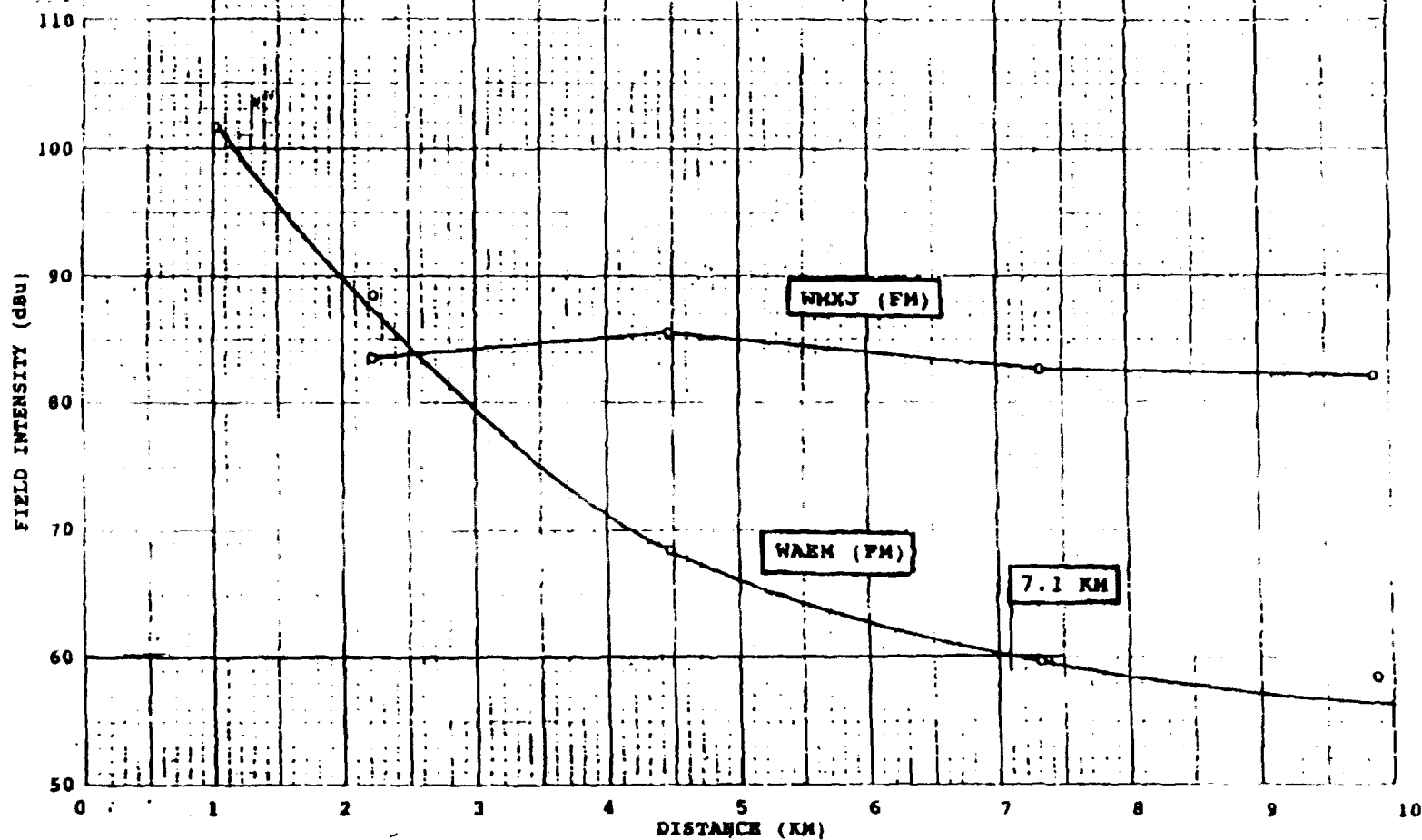
SITE #	DISTANCE (KM)	FIELD INTENSITY - dBu/30'				
		WAEM (VERT)	WAEM (HOR)	WMXJ (VERT)	WAEM (VERT / HOR)	WAEM / WMXJ U / D
1	1.40	92.48	74.36	84.00	-18.12	8.48
2	3.20	75.73	62.53	85.90	-13.20	-10.17
3	4.90	68.66	58.30	84.60	-10.36	-15.94
4	7.50	61.32	-0-	83.00		-21.68

FIGURE 5

360 DEGREE RADIAL

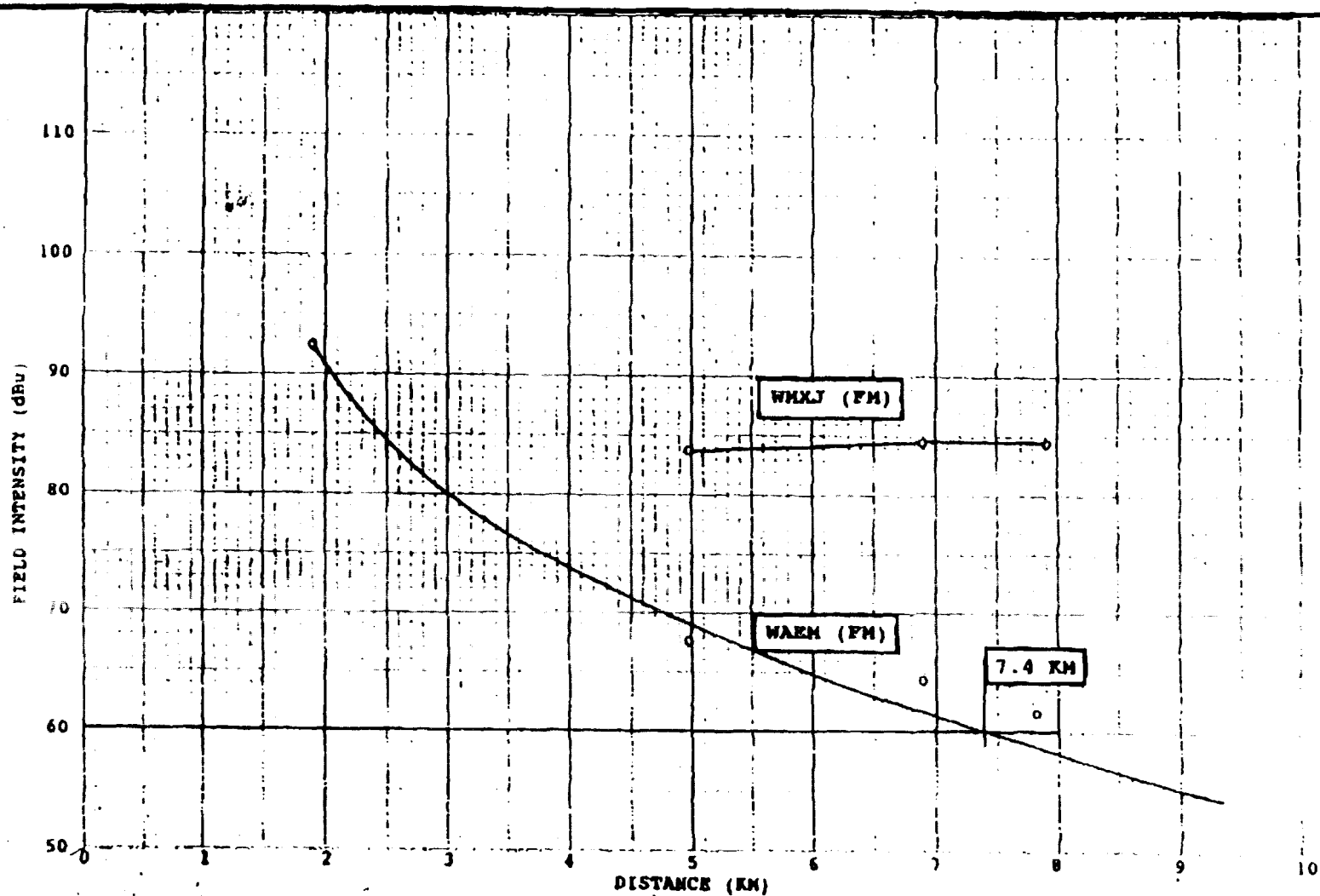
SITE #	DISTANCE (KM)	FIELD INTENSITY - dBu/30'				
		WAEM (VERT)	WAEM (HOR)	WMXJ (VERT)	WAEM (VERT / HOR)	WAEM / WMXJ U / D
1	1.20	90.51	77.25	86.35	-13.26	4.16
2	3.50	67.50	58.60	88.80	-8.90	-21.30
3	6.00	62.60	-0-	89.50	-0-	-26.90

FIGURE 6



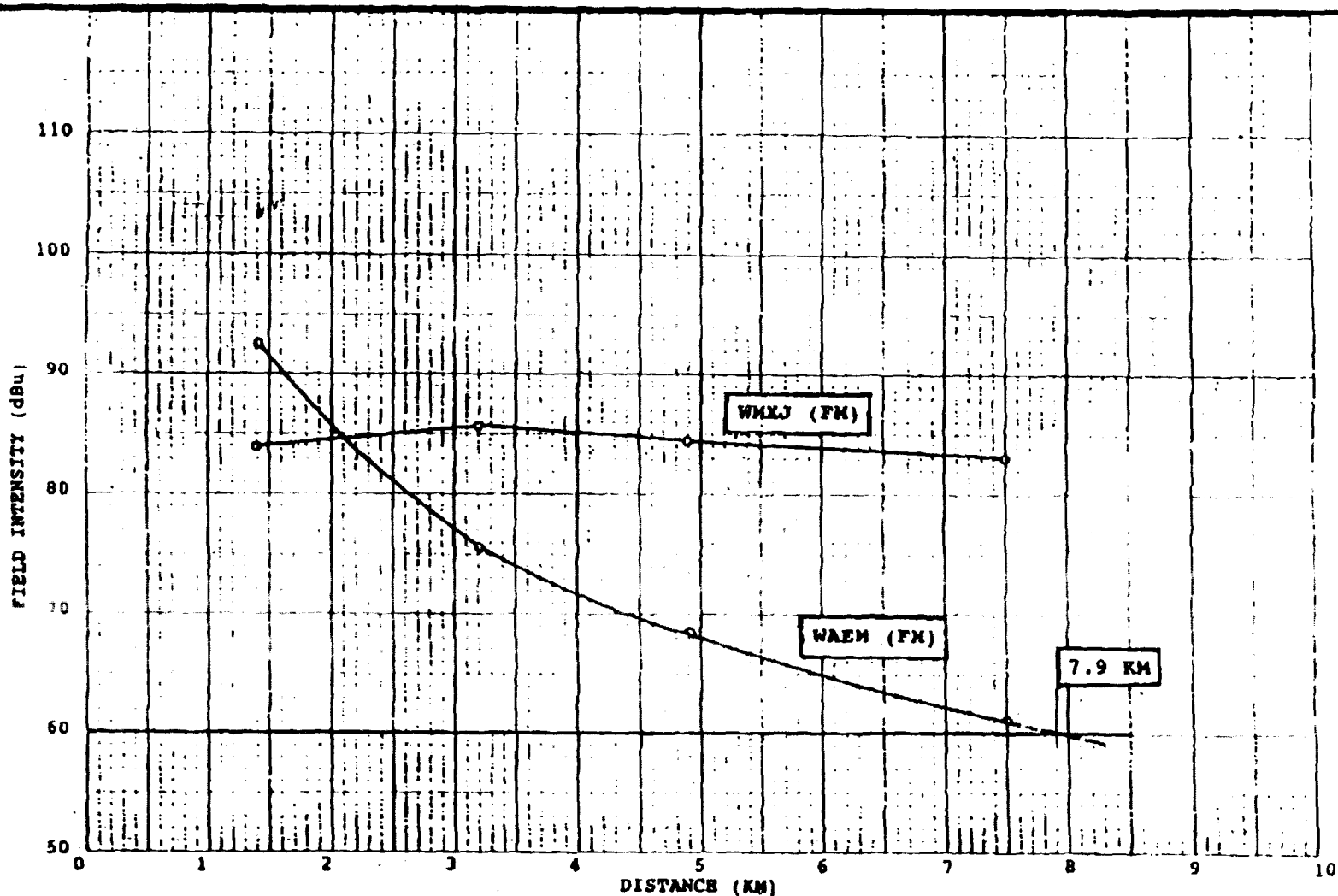
KESSLER AND GEHMAN ASSOCIATES, INC.
 TELECOMMUNICATIONS CONSULTING ENGINEERS
 507 NW 80TH STREET SUITE C
 GAINESVILLE, FLORIDA 32607

225° RADIAL
FIGURE 7



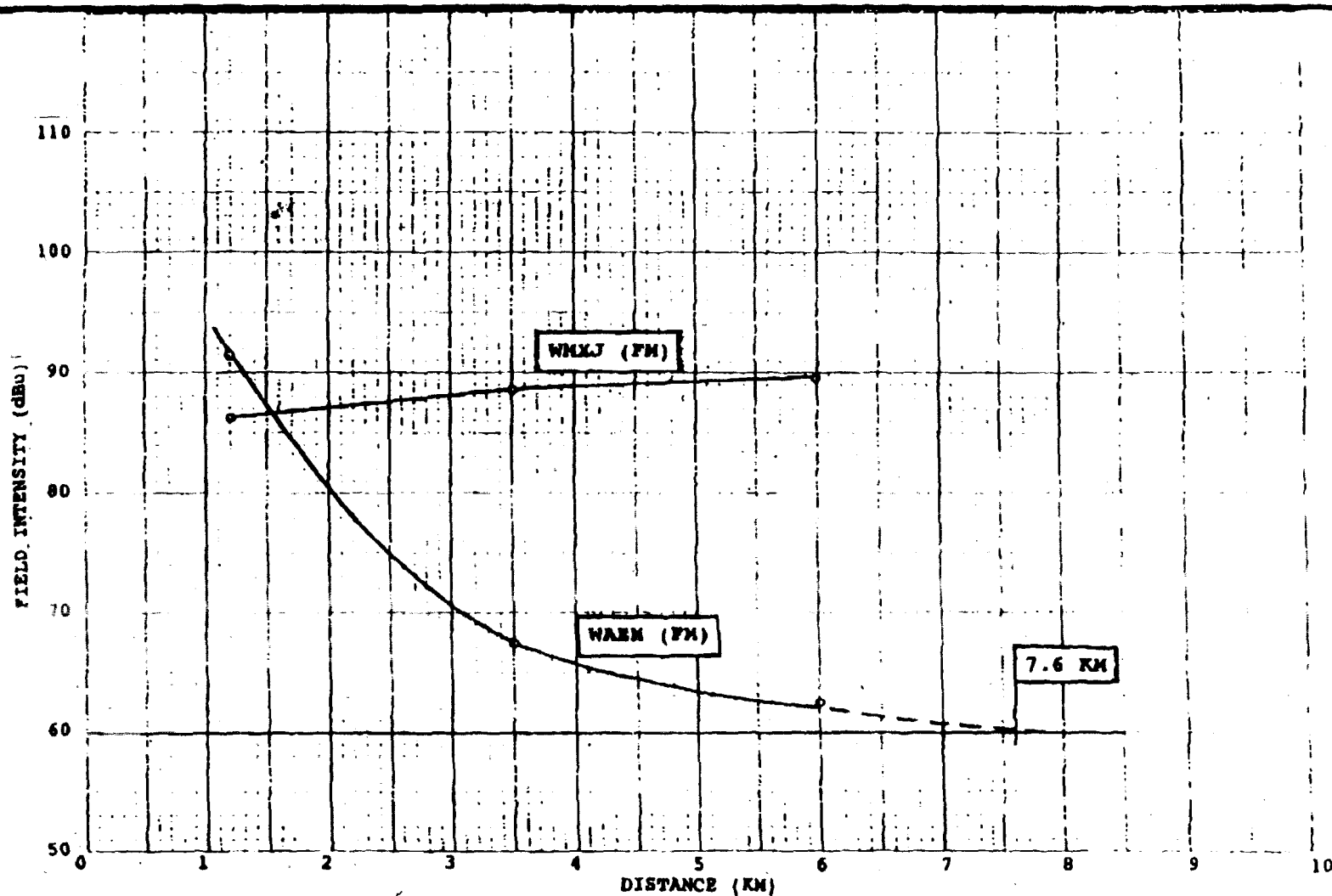
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GAINESVILLE, FLORIDA 32607

270° RADIAL
FIGURE 8



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315° RADIAL
 FIGURE 9



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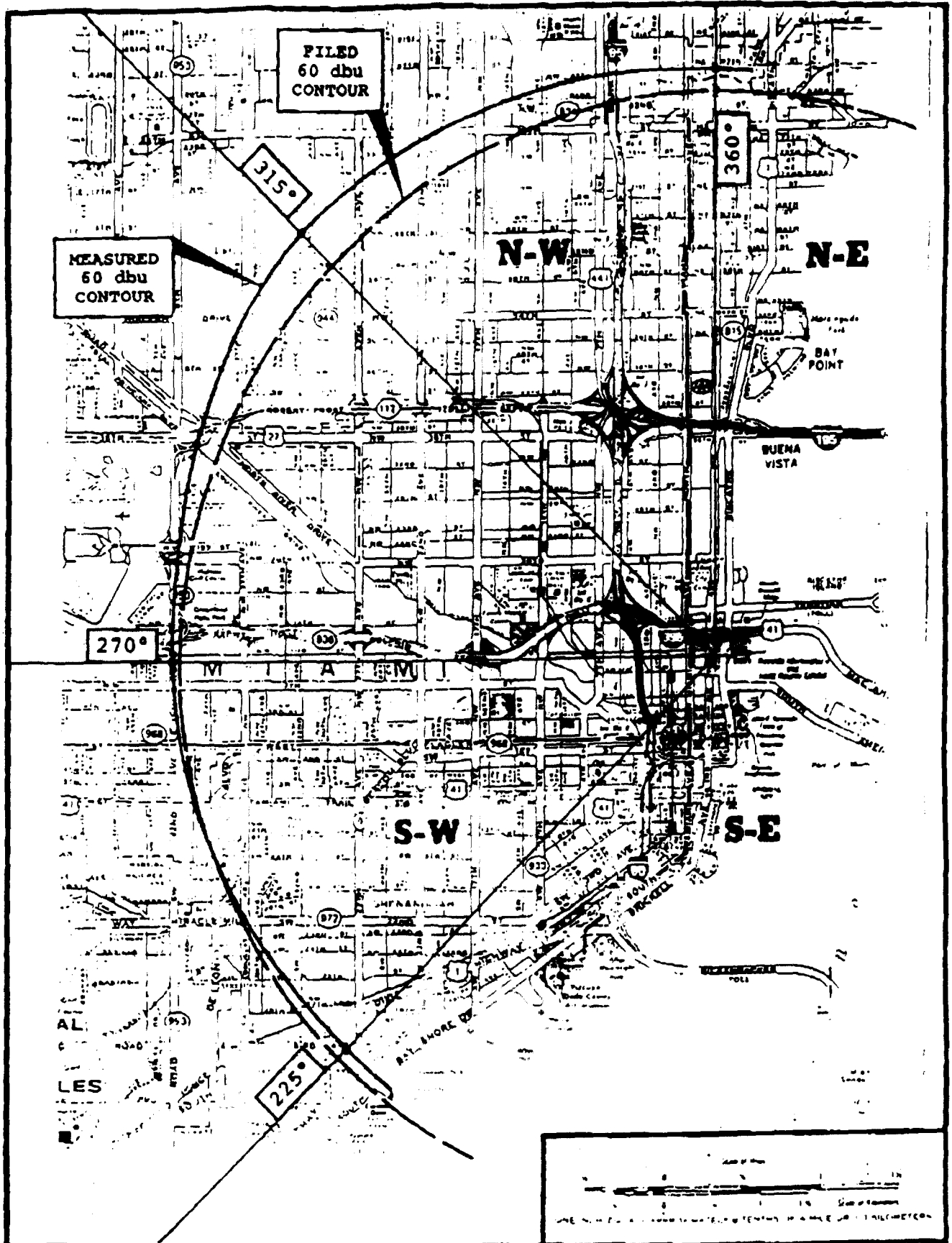
360° RADIAL
 FIGURE 10

The intersection of the field intensity curves with the 60 dbu ordinate on each figure yields the following distances for the four radials:

<u>RADIAL (DEGREES)</u>	<u>DISTANCE (KILOMETERS)</u>
225	7.1
270	7.4
315	7.9 Km
360	7.6 Km

This is considered to be in reasonably good agreement with the predicted distance of 7.3 Km filed with the Commission in the permittee's Construction Permit Application.

FIGURE 11 of this report shows a comparison of the predicted 60 dbu contour filed with the Commission by the permittee of WAEM(FM) and the measured 60 dbu contour based on the measurements reported in this document.



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FIGURE 11

SECTION 4

WAEM(FM) HORIZONTAL POLARIZATION MEASUREMENTS

Under the Special Operating Conditions or Restrictions in subparagraph 5) (ii) on page 4 of the Construction Permit, the permittee is required to examine the effect of the high-rise urban environment on signal polarization. Therefore, in addition to the vertical polarization measurements at each of the sites along the four radials, horizontal polarization measurements were also conducted on WAEM(FM).

There is good reason to expect substantial horizontal polarization components to be produced in a high-rise urban area such as Miami. During the field measurements program conducted over the period from February 14 through February 17, 1995, the presence of reflected signals in addition to the direct signal from the WAEM(FM) transmitter was apparent at all of the measurement sites. The polarization of reflected signals - some of which are reflected more than once - are usually random. Therefore, it is inevitable that these multiply-reflected vertically components would exhibit a horizontal component.

Unfortunately, it was not always possible to obtain accurate readings on the horizontal component of a reflected vertically polarized component when the incident vertically polarized component is well below the strong signal intensity from WMXJ(FM). This problem arises from the relatively poor (compared to an FM radio) selectivity of the Potomac Instruments FIM-71 Field Intensity meter.

The measured results of the horizontal components of the WAEM(FM) signal are given in the second column under FIELD INTENSITY (dbu/30') in FIGURES 3 through 6. It can be observed that the

difference between the measured spurious horizontal component and the desired vertical components ranged from as little as 5.46 db (Site #4, 270° Radial) to as high as 18.12 db (Site #1, 315° Radial).

SECTION 5SUBJECTIVE OBSERVATIONS OF THE MUTUAL INTERFERENCEPOTENTIAL BETWEEN WAEM(FM) AND WMXJ(FM)

Under the special operating conditions or restrictions in subparagraph 5) (iii) on page 4 of the Construction Permit, the permittee is required to ascertain the susceptibility of typical home and car receivers to interference from second-adjacent channel service. During the short time period available to collect data and prepare this progress report, it was not feasible to observe the mutual interference between WAEM(FM) and WMXJ(FM) with a variety of typical home and car radios. However, the susceptibility of two FM radio receivers to the second-adjacent channel interference between WAEM(FM) and WMXJ(FM) was observed at all of the measurement locations described in this report as well as a number of random locations within the Miami urban area as the field intensity measurement equipment was moved to the specified measurement sites.

The FM radio receivers used to observe any possible second-adjacent channel interference between the two subject FM stations were the following:

1. A Chrysler digitally-tuned FM-AM radio provided as standard equipment in a 1991 Dodge RAM 250, DCAD vehicle NO. 14336 operated by the Dade County Airport Department.
2. A Sony portable radio, Model CFD-68 equipped with a one-meter vertical whip antenna.

No interference to the reception of WMXJ(FM) by WAEM(FM) was observed at any time at any of the measurement locations and other locations in transit between the specified measurement locations.

The subjective observations using the two FM radios described above were witnessed by the writer of this report and Mr. William Texidor, Supervisor of the Metro-Dade Aviation Department Radio and Electronic Shop, 305-869-4023.

Occasionally, the Sony portable radio would be subject to interference from high power local FM stations operating in the Miami area which would preclude completely interference-free reception of either WMXJ(FM) or WAEM(FM). A particular example of this type of problem was observed at site #1 on the 360° radial. Although the Chrysler FM radio in the Dodge vehicle exhibited no interference to the reception of both WMXJ(FM) and WAEM(FM), the reception of these two FM stations (and possibly others) was completely blocked by WXDJ(FM) operating on 95.7 mBZ!

With the Chrysler radio in the vehicle tuned to WMXJ(FM) (102.7 mBZ), the vehicle was driven around the base of the Biscayne View Apartments located at 915 NW First Avenue, which is the location of the WAEM(FM) transmitter. No interference to the reception of WMXJ(FM) was observed as the vehicle was driven around the building or when the vehicle was approaching or leaving the building.

On the morning of February 17, 1995, the Chrysler radio in the 1991 Dodge RAM 250 was tuned to 102.3 mHz, the experimental station WAEM(FM). The vehicle was then driven northward on the Palmetto Expressway toward the WMXJ(FM) transmitter site in Pompano Beach to determine at what point the reception of WAEM(FM) would be impaired by second-adjacent channel interference from WMXJ(FM). Slight interference to the reception of WAEM(FM) became noticeable approximately 3.5 Km south of the point where the Palmetto Expressway curves to the east. Although the second-adjacent channel side-band splatter became noticeable at this

point, the transmission from WAEM(FM) was still intelligible. As the vehicle proceeded eastward on the Palmetto Expressway, the reception of WAEM(FM) was very spotty and occasionally unreadable. Spotty interference to the reception of WAEM(FM) by WMXJ(FM) continued as the vehicle traveled east on the Palmetto Expressway until passing the Florida Turnpike, I-95, and US441 interchange. After turning to the south off State Road 826 to North Miami Avenue, the WMXJ(FM) interference to the reception of WAEM(FM) disappeared. Interference-free reception of WAEM(FM) continued as the vehicle proceeded south toward Miami.

The subjective observations of the reception of WAEM(FM) with the Chrysler auto radio and the Sony portable radio over the period from February 14 through February 17, 1995 demonstrated that the reception of WAEM(FM) is limited by second-adjacent channel interference from WMXJ(FM) to the north of the WAEM(FM) transmitter site a distance of approximately 15 km and approximately 16 km to the northwest of the WAEM(FM) transmitter site. The WAEM(FM) interference-free reception to the west, southwest, and south appears to be limited only by the 25 watt radiated power and FM station interference other than WMXJ(FM).

SECTION 6

COMMENTS ON THE MEASUREMENT PROGRAM

The measurement of the intensity of relatively weak signals radiated by a 25 watt ERP FM transmitter such as WAEM(FM) in a highly-developed urban area such as Miami, Florida poses some unique challenges. The problem is two-fold:

1. The presence of a large number of high-power FM transmitters scattered throughout the Metropolitan Miami Area.
2. The relatively poor selectivity characteristics of professional field intensity meters such as the Potomac Instruments FIM-71.

The combination of (1) and (2) above can result in meter readings of the relatively weak signals of WAEM(FM) which are contaminated by the presence of stronger signals radiated by nearby transmitters operating on frequencies removed from WAEM(FM) by as much as 5 MHz.

As a consequence of the above, considerable care must be exercised by carefully monitoring the audio of the stations to be measured with a good-quality sensitive head-set and ensuring that the meter response falls off symmetrically on both sides of the measured carrier frequency as the field intensity meter is tuned.

A very important consequence of the combination of inadequate frequency selectivity of the measuring device and the proximity of high-power FM stations is that frequently a reliable measurement of the relatively weaker signal cannot be made at all. This problem might be solved through the use of a calibrated high-resolution spectrum analyzer instead of a conventional field intensity meter with an analog meter display. Additionally, the

measurement of vertically polarized FM broadcast signals could be greatly simplified by using a calibrated coaxial or ground-plane antenna instead of a vertical dipole.

This engineering report has been prepared by W. J. Kessler, who states under penalty of perjury that he is a registered professional engineer licensed to practice in Florida and Wisconsin. He is Vice President of Kessler and Gehman Associates, Inc. Telecommunication Consulting Engineers with offices located at 507 NW 60th Street, Gainesville, Florida. His qualifications are a matter of record having submitted numerous statements to the FCC over the past 30 years and that the information contained in this report is true and correct to the best of his knowledge and belief.

KESSLER AND GERMAN ASSOCIATES, INC.



W. J. KESSLER, P.E.

VICE PRESIDENT

Exhibit 2

DECLARATION

I, Victor M. Diaz, do hereby certify and state as follows:

1. I am a principal of XHQS, S.A., licensee of Radio Station XHKY(FM), operating on the frequency 99.3 MHz (i.e., on FM Channel 257B1) in Tijuana, Mexico. XHKY is a Class B1 FM station. Radio Station XHKY formerly operated as a Class A FM station on the frequency 95.7 MHz in Tijuana, Mexico, but received authorization to change frequencies and improve technical facilities to Class B1 status approximately three years ago, following recent revisions to the Bilateral Agreement between the United States and Mexico.

2. The transmitter site of XHKY(FM) is located only 3.8 kilometers away from the transmitter site of second adjacent channel FM Station XHMORE(FM), which operates on FM Channel 255B (i.e., on the frequency 98.9 MHz) in Tijuana, Mexico. In addition, the transmitter site of Radio Station XHKY(FM) is located only 30.9 kilometers from second adjacent channel Class A Radio Station XHBCN(FM), operating on Channel 259A (i.e., on the frequency 99.7 MHz) in Tijuana, Mexico.

3. Even though Radio Station XHKY(FM) has operated for almost three years at dramatically reduced mileage separations from the transmitter sites of second adjacent channel FM stations on either side of XHKY(FM)'s frequency, and even though one of these stations has its transmitter site located only 3.8 kilometers away from the XHKY(FM)'s transmitter site,

nonetheless, in the approximately three years that Radio Stations XHKY(FM), XHMORE(FM) and XHBCN(FM) have operated in this fashion, there have been no instances of interference or complaints of interference by either XHBCN(FM) or XHMORE(FM) to XHKY(FM), or, to my knowledge, from XHKY(FM) to either XHBCN(FM) or to XHMORE(FM). To the contrary, over the past three years, the latter three stations have coexisted harmoniously in Tijuana without any indications of interference.

I hereby declare, certify and state, under penalty of perjury, that the foregoing is true and correct to the best of my knowledge, information and belief.



Victor M. Diaz

Executed on this 22 day of
July, 1996.

Table of Contents

	Page
Table of Contents	-i-
Summary	-ii-
I. Interest of Compass in This Proceeding	1
II. Introduction	3
III. Brief History and Development of FM Broadcasting	7
IV. Liberalization of Section 73.213 of the Rules With Respect to Grandfathered Short-Spaced Second And Third Adjacent Channel Stations, As Proposed By the Commission Under "Proposal 2" in Paragraphs 17 - 26 of Its NPRM, Would Serve The Public Interest.	15
A. Significant Public Interest Benefits Would Flow From Adoption of Proposal 2	15
1. Enhancement of the Ability of Broadcasters to Compete And To Remain Viable in the Face of Consolidation of Onership	15
2. Better Service To The Public	20
3. Conservation of Scarce Commission Resources	24
B. Adoption by the Commission of Its Proposals to Liberalize Section 73.213 of The Rules For Grandfathered Short-Spaced Second and Third Adjacent Channel Stations Will Not Result in Increased Interference to Such Stations.	27
1. Memphis, Tennessee	32
2. Miami, Florida	33
3. Greenville, South Carolina	33

4. Washington, D.C.	34
5. Tijuana, Mexico	34
V. The Commission Should Eliminate its Policy On Agreements by Grandfathered Short-Spaced Stations	37
VI. Conclusion	39

Summary

In this proceeding, the Commission has a unique opportunity to restore balance and flexibility in its regulatory regime with respect to processing of modification applications for grandfathered short-spaced stations whose licensees find it necessary to relocate or improve technical facilities in light of changing circumstances. By adopting the proposals in its NPRM with respect to second adjacent channel and third adjacent channel grandfathered short-spaced stations, the Commission will be providing greater flexibility for such stations to meet the challenges posed by operating in today's highly competitive and increasingly consolidated radio environment and for such stations to better serve their audiences. Correspondingly, scarce Commission resources can be conserved by adoption of the Commission's proposals. Importantly, adoption of those proposals with respect to second and third adjacent channel grandfathered short-spaced stations will not result in increased interference to any station.

For the reasons set forth above, the Commission should liberalize Section 73.213(a) with respect to grandfathered short-spaced second adjacent channel and third adjacent channel stations in the manner proposed in Paragraph 25 of its NPRM in this proceeding. Alternatively, the Commission should modify Section 73.213(a) for such second adjacent channel and third adjacent channel grandfathered short-spaced stations in the manner proposed in Paragraph 26 of the NPRM. In addition, the Commission should adopt its proposal, in Paragraph 30 of its NPRM, to no longer require grandfathered short-spaced second adjacent and third adjacent

channel stations seeking relocation of or improvement in technical facilities to obtain a mutual facilities improvement agreement with other such stations. As shown above, adoption of these proposals will result in significant public interest benefits, while not posing any risk of any additional interference to grandfathered short-spaced stations.